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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/736,948	12/14/2000	Satoshi Kawahata	FUJI 18.089	1527

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KATTEN MUCHIN ZAVIS ROSENMAN
575 MADISON AVENUE
NEW YORK, NY 10022-2585

EXAMINER	
SCHEIBEL, ROBERT C	
ART UNIT	**PAPER NUMBER**
2666	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/736,948	KAWAHATA ET AL.	
	Examiner	Art Unit	
	Robert C. Scheibel	2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 December 2000*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-8 and 11-15* is/are rejected.

7)☒ Claim(s) *5,9 and 10* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 December 2000* is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 3.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

- in line 26 on page 2, "terminals A and C" should be "terminals A and B";
- in lines 6-9 of page 3, the sentence starting with "Consequently, only a low priority set..." does not make sense and should be reworded.

Appropriate correction is required.

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Drawings

3. The drawings are objected to because of the following:

- in Figure 1, element MM is labeled "20" and should be "21";
- in Figure 3, there are typographical errors: (a) in element 28, "CALLG" should be "CALL"; (b) in element 31, "TABLE OF TRUCK" should be "TABLE OF ***TRUNK***";
- in Figure 6, element 31 is labeled "TABLE OF TRUCK ATTRIBUTE DATA" and should be "TABLE OF ***TRUNK*** ATTRIBUTE DATA";

- in Figure 7, step S01 should be "EXTRACT A TRUNK NUMBER CORRESPONDING TO A RECEIVED DIAL NUMBER FROM THE TRANSLATION TABLE" to be consistent with the specification and with step S02.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

4. Figure 20 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

5. Claim 1 is objected to because of the following informalities: the phrase "at least one of second terminal" should be reworded to something like "at least one second terminal". Appropriate correction is required.

6. Claims 1-4, 6, 8, and 15 are objected to because of the following informalities: the phrase "when transmits" in lines 23, 7, 6, and 16 of claims 1, 2, 4, and 15, respectively, and the phrase "when receives" in lines 2, 5, and 2 of claims 3, 6, and 8, respectively, should be reworded. These phrases should be changed to something like "when it transmits (receives)" or "when transmitting (receiving)". Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim **8** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Claim 8 recites the limitation "the number of the compressed and encoded voice data" in lines 12-13. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims **1 and 11-15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA).

Regarding claims **1 and 12-15**, the general structure of the preamble of each of these claims is disclosed in Figure 20. The functionality of both the exchange and the connecting device are contained in the IP Network Connection Device 2 of Figure 20. There is nothing in the claim language that distinguishes the exchange from the similar functionality of the connecting device 2 of figure 20. As described in lines 12-21 of page 2, the limitation of claims 1 and 15 of the exchange holding priority classes and the limitation of the connecting device holding service types is disclosed as the connecting device 2 must have priority classes associated with the terminals to determine what priority to use when sending the packets and it must have a service type in order to determine what value to insert into the IP TOS field when transmitting the packet on the IP network so as to indicate the packet's priority to other network devices. Further, the step of the first exchange (subsystem within device 2) notifying the connecting device (another subsystem within device 2) of the priority class of a terminal when a call is set up, clearly must exist in order to allow the connection device subsystem to modify the packets according to this priority. Similarly, the limitation of the first connection device reading out a service type corresponding to the priority class also exists in order for the connection device subsystem to be able to insert the proper value in the TOS field of the packets. Finally, the limitation of claims 1 and 15 of the connecting device setting

the saved service type is discloses in Figure 20 in the field of the packet P1. Similarly, regarding claims 12 and 13, the priority class storage section, the acquiring section, and the priority class notifying section are disclosed in the exchange subsystem of element 2 as detailed in the related steps of claims 1 and 15 above. Regarding claims 12 and 14, the service type storage section, the reading section, the saving section, and the setting section are all disclosed in Figure 20 as detailed in the related steps of claims 1 and 15 above.

AAPA does not disclose expressly the limitation that the exchange and the connecting device are separate devices. However, it would have been obvious to one of ordinary skill in the art to modify the connecting device of Figure 20 such that the same functionality is performed in two separate devices (and exchange and a connecting device). The motivation for doing so would have been to achieve reduced network cost by decentralizing the functionality of connecting device 2 of Figure 20. The exchange would be less complex than the combined device 2 and could be deployed at customer premises, for example. In addition, a single connecting device could support multiple exchanges. The combination of the less expensive exchange and the single connecting device supporting multiple exchanges clearly would result in a cost savings. Therefore, it would have been obvious to modify the AAPA by decentralizing the functionality of the connecting device for the benefit of lower costs to obtain the invention as specified in claims 1 and 12-15.

Regarding claim **11**, the limitation that the exchange holds priority classes corresponding to an attribute of each terminal, the limitation that the exchange detects

an attribute of the terminal when a call is set, and the exchange notifies the connecting device of the priority class corresponding to this attribute is also disclosed by the AAPA. It is clear that in order to distinguish among priority levels for the terminals C and D of Figure 20, the exchange subsystem of the device 2 must use some attribute to determine the corresponding priority level.

13. Claims **2-3, 6-8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of U.S. Patent 6,735,175 to Havens.

AAPA discloses all the limitations of parent claim 1 as explained above. AAPA also discloses the limitation of the connecting device editing the packets in Figure 20 (adding the corresponding service type to the packets before sending them on the IP network.) However, AAPA does not disclose expressly the limitations of claims 2-3 or 6-8.

Regarding claim 2, Havens discloses the limitation of the first connecting device notifying the second connecting device of the service type in lines 12-14 of column 2 as well as in Figure 1. Figure 1 indicates how the call is set up with the first connecting device (the combination of the MG 207 and MGC 205) notifying the second connecting device (209 and 211) of the parameters for use in the call. The service type in this case is the codec and rate of sampling. In order to perform two-way communications in the call, the steps of the second connecting device saving the service type and setting the service type in the packets from the call-in to call-out devices (via the codec algorithm used) are required.

AAPA and Havens are analogous art because they are in the same field of endeavor of voice over IP communications systems. At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify AAPA to exchange end-to-end call setup information at the start of the call. The motivation for doing so would have been to allow provide consistent quality of service for traffic in both directions in the same call. Therefore, it would have been obvious to combine Havens with AAPA for the benefit of consistent quality of service in both directions of a call to obtain the invention as specified in claim 2.

Regarding claim 3, Havens discloses the limitation of the exchange receiving an indication of the change in the priority level in the change in QoS described in lines 12-16 of column 4. Havens discloses the limitation of the connecting device storing the new service type corresponding to the priority and setting the new service type to the packets. In the case of Havens, the QoS is the priority class and the codec algorithm is the service type.

Regarding claim 6, Havens discloses the limitation of the first connecting device determining a method for compressing and encoding data in lines 12-17 of column 2. Havens also discloses the first connecting device compressing and encoding according to the determined method in lines 37-44 of column 3.

Regarding claim 7, Havens discloses the limitation of the connecting device detecting a service type or priority class corresponding to the communication and changing the method for compressing and encoding in the caller entering keystrokes to change the QoS in lines 12-38 of column 4.

Regarding claim 8, Havens discloses the limitation of the first connecting device compressing and encoding the data in lines 37-44 of column 3. Havens also discloses the limitation of detecting a service type or priority class and changing the number of the compressed and encoded voice data in lines 12-38 of column 4. The new QoS level is the number of the compressed and encoded data.

AAPA and Havens are analogous art because they are in the same field of endeavor of voice over IP communications systems. At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify AAPA to allow the encoding scheme to be determined at call setup and to be changed according to the user during the call. The motivation for doing so would have been to allow the caller to change the QoS during a call as specified in lines 18-24 of column 2 of Havens. Therefore, it would have been obvious to combine Havens with AAPA for the benefit of allowing users to change QoS to obtain the invention as specified in claims 3 and 6-7.

Allowable Subject Matter

14. Claims **5 and 9-10** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent 6,292,489, U.S. Patent Application Publication

2003/0039210, U.S. Patent 6,608,832, U.S. Patent Application Publication 2002/0097675, U.S. Patent 6,104,700, U.S. Patent 6,643,258, U.S. Patent 6,529,499 and U.S. Patent 6,449,251 all teach methods of prioritizing packet data similar to the present application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert C. Scheibel whose telephone number is 703-305-9062. The examiner can normally be reached on 6:30-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached on 703-308-5463. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RCS 5-29-04

Robert C. Scheibel
Examiner
Art Unit 2666

DANG TON
PRIMARY EXAMINER